

REMARKS

Claims 1 – 10 are pending in this application. Claims 1, 7, 8, and 10 are currently amended. No new matter has been added as a result of these amendments. Claim 2 is cancelled. In view of the amendments and the following remarks, the Applicants respectfully request reconsideration of this application.

Claim Objections:

The Examiner has objected to claim 7 indicating that the word “stripe” should be in plural tense. Applicants have amended claim 7 accordingly.

Rejection of Claims 1, 3, and 8 Under U.S.C. §102:

Claims 1 and 3:

Claims 1 and 3 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 1,918,087 (the “’087 patent”) to Donely. Applicants have rewritten claim 1 and submit that the claims overcome the rejection.

The present invention is directed towards a light guide member and an illuminating device which are able to efficiently and uniformly irradiate the illumination light to only an area requiring the illumination. The light guide member comprises an incident face for introducing light irradiated from a light source, an emitting face spaced apart from the incident face for emitting the light, a reflection face constructed by many reflection stripes, and a light guide portion for propagating the light between the incident face and the emitting face. The reflection stripes are grooves constructed by a first face having an inclination angle of greater than or equal to about 1 degree and less than or equal to about 10 degrees and a second face having an inclination angle of greater than or equal to about 41 degrees and less than or equal to about 45 degrees. Alternatively, the light guide member may comprise an annular light guide body, an annular emitting face formed in the light guide body and a reflection face formed in the light guide body. The reflection face having many grooves formed in the inner circumference of the light guide body.

The ’087 patent is directed towards a reflecting lens that reflects and transmits light. (Col. 1, line 3 – 4). The ’087 patent discloses a structure where the incident face is also the emitting face (surface 1 of Figure 1 in the ’087 patent).

In order for a reference to act as a §102 bar to patentability, the reference must teach each and every element of the claimed invention. Verdegaal Bros. v. Union Oil Co. of Cal., 814 F.2d 628, 631 (Fed. Cir. 1987). Without the required teaching of each and every element as set forth in the claims, it is improper for the Examiner to continue such rejections under §102.

Claim 1 has been amended to recite a limitation where the emitting face is spaced apart from the incident face. Additionally, claim 1 has been amended to recite a limitation where the reflection stripes are grooves constructed by a first face having an inclination angle of greater than or equal to about 1 degree and less than or equal to about 10 degrees and a second face having an inclination angle of greater than or equal to about 41 degrees and less than or equal to about 45 degrees. These limitations are not present in the structure described in the '087 patent. To the contrary, as the Examiner noted in the Office Action, the incident and emitting faces of the '087 patent are the same surface. Additionally, the '087 patent is silent regarding the angle of inclination of the reflecting faces. Because these limitations are not disclosed in the '087 patent, the reference does not anticipate claim 1 of the current invention.

For at least these reasons, the Applicants believe the amendment places claim 1 in condition for allowance. Claim 3 depends from claim 1, and therefore likewise includes the amended limitations. Applicants respectfully request reconsideration of these claims.

For the reasons set forth below, Applicants believe these claims are patentable over the '087 patent in view of the additional cited art.

Claim 8:

Claim 8 was rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,880,945 (the "'945 patent") to Knaack et al. Applicants have rewritten claim 8 and submit that the claim overcomes the rejection.

The '945 patent is directed towards a vehicle headlight. As the Examiner points out, Figure 5 illustrates a reflecting face with a plurality of grooves formed on one side. Figure 5 is a center lengthwise cross-sectional view of an elongated light conductor element. (Col. 4, lines 32 – 34).

In the '945 invention, a light in-coupling element feeds light into two light out-coupling elements that have a circular cross section. (Col. 4, lines 53 – 56). Each light out-coupling

element reflects light from a rearward reflection surface towards a light out coupling surface. (Col. 5, lines 8 – 10). While the '945 patent does not disclose on what part of the light guide the plurality of grooves are located, the figures and operation of the device are insightful in determining this location.

Viewing Figure 5 in the context of Figure 1, the only configuration that would support the operation of the invention for its intended purpose is where the plurality of grooves are located on the bottom of the light guide. This follows because in order for the invention of the '945 patent to operate as a vehicle headlight the light must be irradiated in a forward direction. There is no indication that the structure disclosed in the '945 patent discloses forming the plurality of grooves in the inner circumference of the light guide. Furthermore, to reason that the plurality of grooves could be located on the inner circumference of the light guide, as disclosed would be illogical. If the plurality of grooves were located along the inner circumference of the light guide, as disclosed in amended claim 8, the light would radiate in a radial direction from the light guide and therefore fail to illuminate the area in front of the vehicle.

The '945 patent fails to teach each and every element of the claimed invention and for at least this reason Applicants believe the amendment places claim 8 in condition for allowance. Applicants respectfully request reconsideration of this claim.

Rejection of Claims 2, 4 – 5, 6, 9, and 10 Under U.S.C. §103:

Claims 2 and 10:

Claims 2 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over the '087 patent in view of U.S. Patent No. 6,786,613 (the "'613 patent") to Suzuki. Claim 2 has been cancelled and incorporated into amended claim 1 while claim 10 has been amended to depend from claim 1. Applicants submit that the amended claim 1 overcomes the rejection.

The '613 patent is directed towards a spread illuminating apparatus used to illuminate signs and various display devices. In the '613 patent, a light reflection pattern is composed of grooves with different angles of inclination to each other. Specifically, the '613 patent discloses a structure where a first inclination angle is set to a range of approximately 40 degrees to 55 degrees, and a second inclination angle is set to a range of approximately 60 degrees to 90 degrees. These settings were determined through experimentation to obtain a desired reflection of the light rays. (Col. 2, lines 7 – 8).

An obviousness rejection can only be established where all the claim limitations are taught or suggested by the prior art. In re Royka, 490 F.2d 981 (CCPA 1974); MPEP 2143.03. Amended claim 1 of the invention requires a first inclination angle of greater than or equal to about 1 degree and less than or equal to about 10 degrees and a second face having an inclination angle of greater than or equal to about 41 degrees and less than or equal to about 45 degrees. This limitation is not taught or suggest by the combination of the '087 patent and the '613 patent. Moreover, no suggestion or motivation exists to modify the inclination angles of the '613 patent as these angles were specifically selected to achieve a desired result (directing the light rays in a particular direction). A modification of the inclination angles would render the '613 patent unsatisfactory for its intended purpose. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984).

For at least these reasons, the Applicants believe the amendment places claim 10 in condition for allowance. Applicants respectfully request reconsideration of this claim.

Claims 4 – 5:

Claims 4 - 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over the '087 patent in view of the '945 patent. Claims 4 – 5 are dependent on claim 1. Applicants submit that the amended claim 1 overcomes the rejection.

An obviousness rejection can only be established where all the claim limitations are taught or suggested by the prior art. In re Royka, 490 F.2d 981 (CCPA 1974); MPEP 2143.03. Claim 1 has been amended to recite a limitation that the reflector grooves are configured with a first inclination angle of greater than or equal to about 1 degree and less than or equal to about 10 degrees and a second face having an inclination angle of greater than or equal to about 41 degrees and less than or equal to about 45 degrees. Neither the '087 patent nor the '945 patent teach or suggest this limitation.

For at least this reason, the Applicants believe the amendment place claims 4 – 5 in condition for allowance. Applicants respectfully request reconsideration of these claims.

Claims 6 and 9:

Claims 6 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over the '087 patent. In regards to claim 6, the Examiner indicates that while the '087 patent does not disclose the incident surface as being in the very center of the concentric circle, it would generally be obvious to one of ordinary skill to position the incident face at the center in order to evenly distribute the light emitted from the light source. In regards to claim 9, the Examiner indicates that while the '087

patent does not disclose a light source as being part of the light guide, it would have been obvious to one having ordinary skill in the art to modify the '087 patent by making the light source integral with the reflecting device.

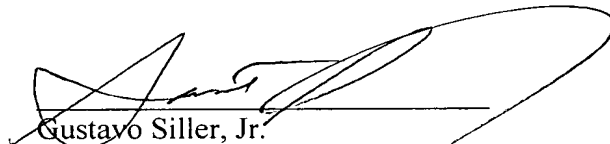
Claims 6 and 9 both depend from claim 1 and accordingly incorporate the limitations of claim 1. As indicated above in the section addressing the §102 rejection, the '087 patent fails to disclose all of the limitation of amended claim 1. As such, the modifications suggested by the Examiner in relation to claims 6 and 9 likewise fail to disclose each and every element of the claimed invention.

For at least these reasons, the Applicants believe claims 6 and 9 are in condition for allowance. Applicants respectfully request reconsideration of these claims.

CONCLUSION

In view of the claim amendments and the remarks above, Applicants respectfully submit that all of the pending claims are in condition for allowance. If for any reason the Examiner believes that the amendments are remarks do not put the claims in condition for allowance, the undersigned attorney may be reached at (312) 321-4200 to resolve any remaining issues.

Respectfully submitted,



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